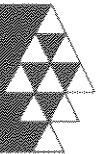


Karuk Tribe of California

**Department of Natural Resources**

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STEINACHER ROAD DECOMMISSIONING PROJECT AND

KRIS WORKSTATION

COOPERATIVE AGREEMENT NUMBER 14-48-11333-9-J107

PROJECT NUMBER 99-319(h)-VI-07

FINAL REPORT

January 2001

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ABSTRACT

This final report fulfills the reporting requirements for the Karuk Tribe of California's Cooperative Agreement with the U.S. Fish and Wildlife Service, titled "Steinacher Road Decommissioning Project and KRIS Workstation". The agreement became effective in April 1999, and expired in December of 2000. This agreement was entered into under the authority of 31 U.S.C. 6301-6308 (1982) and the Klamath Act. The work, which was undertaken through this agreement, was part of the Klamath River Basin Fisheries Task Force Work Plan and Restoration Program for fiscal year 1999, as recommended by the Service.

One of the objects of this project was to decrease the sedimentation caused by the remaining 5 miles of road within the Wooley Creek watershed. The reduction of sediment in impaired watersheds has been proven to increase and enhance critically important Salmonid refugia, which will help restore populations of Spring Chinook, Coho, petitioned Fall Chinook salmon and steelhead trout. The other object of this project was to continue to operate and maintain the KRIS Database at the Karuk Tribe of California's Department of Natural Resources.

INTRODUCTION

The Wooley Creek tributary is widely recognized as one of the most pristine and high quality anadromous fish habitats in the state of California. The need to reduce the impacts of sediment has been recognized in the Presidents Northwest Forest Plan via designation of both Wooley Creek and the Salmon River as "Key Watersheds". The Karuk Tribe's goal is to protect Wooley Creek as one of the key watersheds that serve as refugia for threatened coho salmon, spring chinook, petitioned fall chinook salmon and steelhead trout.

Steinacher and Wooley Creeks, as well as the Salmon River are Class I streams (FSM 2536.1), providing spawning, rearing and migration habitat for anadromous and resident

fish populations. The Salmon River has coho and chinook salmon, steelhead and native trout, shad and sturgeon. Steinacher Creek has resident trout populations.

In the case of the Salmon River and Wooley Creek, the Steinacher Road represents the primary threat to the future function as Salmonid refugia. Over the last 26 years since the road was constructed, approximately 10,650 cubic yards of sediment has entered the stream channels from cutbanks and road surfaces. The annual volumes of sediment delivery from these sources are more than 3 times natural background levels.

DESCRIPTION OF STUDY AREA

The Steinacher Road was built between 1969 and 1971. The original length was 7.1 miles which abruptly ended at the Marbled Mountain Wilderness boundary. The USDA Forest Service has completed Phase I of road decommissioning, which returned approximately 2.1 miles of road prism to a more erosionally stable ecosystem function. The Portuguese trailhead and a horse staging area into the wilderness exists at the current end of the road. Currently the road receives minimal maintenance each year. The Karuk Tribe secured partial funding for Phase II of the road decommissioning and has performed “storm-proofing” for the remainder of the road until additional funds are secured and the decommissioning of the entire road is complete.

The Steinacher Road is in the lower segment of the Salmon River watershed, specifically affecting the lower portion of Wooley and Steinacher Creeks. These watersheds have been classified as Tier 1 Key Watersheds, they are identified specifically for directly contributing to the conservation of habitat for at-risk anadromous salmonids and resident fish species. In addition, the land surrounding Steinacher Road has been classified as Late Successional reserve.

Studies in the Klamath Mountains, including the Salmon River, have shown that roads are a primary contributor of sediment into stream courses. The origin of the sediment has two generic causes, landslide derived sediment and surface erosion. Landslide mechanisms with the granitic terrain of the Steinacher watershed in the Wooley Creek

tributary are primarily debris flows and torrents. Surface erosion takes the form of rills, gullies and dry ravel.

The culverts and ditches originally constructed on the Steinacher Road continually fail due to highly erosive granitic soils. The high rates of sediment generated by winter storms trigger accelerated gully erosion on the hillslopes below the road and result in costly and frequent road maintenance to keep the inadequate drainage structures functioning properly. Sedimentation and aggradation in the stream channels result from the failure of the road prisms, road stream crossings and debris flow surface erosion. Stream habitat impacts resulting from this sedimentation include; water quality, streambed morphology quality and function, creation of migration barriers, and reduction of instream and riparian cover.

METHODS AND MATERIALS

This decommissioning project has implemented proven decommissioning methods to remove and / or stabilize unstable logging haul roads, stream crossings, and to reestablish the natural hillslope drainage pattern along the road prism. There are no skid trail or spur roads to be treated as road construction was halted before any resource extraction took place, and the road exists along a wilderness boundary.

Work items during Phase II included the removal of one mile of logging haul road and stream crossings along Steinacher Road by excavating all introduced fill materials, endhauling or pushing all fill materials to be stockpiled at fillsites along the intervening road reaches, through-cuts and at a large fillsite referred to as the “corral area”. All the transported fill material was outslowed and the road prism was ripped prior to placing fill spoils along the road segments. Site-specific treatments include; hydroseeding, mulching and rock armoring.

SUMMARY AND CONCLUSIONS

On a project of this magnitude, accurate survey detail is critical for its ecological and financial success. The first volume estimates conducted by Pacific Watershed Associates, estimated 172,265 yd³ of fill material to be excavated. Through more detailed surveys made during the Karuk Training Program, the volume estimate increased to 196,056 yd³. This 12 percent increase in total volume is a significant contingency. In addition, the extra 23,791 yd³ of fill to move is mostly from RX10, the excavation with the highest treatment unit cost per yard because the fill has to be end-hauled.

The Karuk Tribe and the Forest Service is tackling one of the largest road decommissioning projects in the Pacific Northwest to date. This project is vitally important for the beginning of the restoration of the Karuk Tribe's Ancestral Territory and the National Forests, as well as for the local economy. Because the cost for decommissioning Steinacher Road is high, the project requires an ongoing financial commitment to complete it.

SUMMARY OF EXPENDITURES

Due to the project size and technical complexity, TerraWave Systems estimates the total project cost to be \$2.58 million. In FY99, approximately \$788,000 was secured from six independent sources. In FY00 and FY01, additional funding was requested from these and other sources. In FY00, about \$480,000 was secured; however, these funds were received too late in the field season to implement heavy equipment work.

Expenses for the project were tracked in six categories: contractual, personnel, heavy equipment, supplies and materials, travel, and indirect costs for a total of about \$788,000 (see Table 1). Procuring heavy equipment was the largest expense on the project—approximately 55 percent of the total project cost for FY99. The trucking contract accounted for 48 percent of the heavy equipment category. Personnel costs (for heavy equipment operators, monitoring, survey teams, and labor intensive tasks) accounted for

about 16 percent of the total; however, approximately 70 percent of this cost was associated with heavy equipment operations. Contractual expenses accounted for about 19 percent of the total; approximately 65 percent went to TerraWave Systems for project management. The remaining material and supplies, travel and indirect cost categories represented 5 percent, 2 percent and 3 percent of the total costs, respectively. As table 1 shows, the majority of expenditures for this agreement were used for heavy equipment rental and personnel. No nonexpendable property was acquired.

Table 1. Summary of Expenditures

Account	Revenue	Personnel	Travel	Heavy Equipment	Contractual	Supplies	Indirect	Expenditures	Carryover
BIA 99	115,878.00	81,615.00	4,157.00					85,772.00	
JTPA	13,500.00	13,500.00						13,500.00	
BIA 97	197,205.37	21,867.00	7,172.32	118,289.68	61,391.00	10,352.37		219,072.37	
CDFG	400,000.00	61,390.00	3,950.00	289,800.00		8,496.00	36,364.00	400,000.00	
EPA	21,432.00	16,088.00	1,000.00		4,344.00			21,432.00	
USFS	30,000.00			30,000.00				30,000.00	
USFWS	11,558.00	1,260.00	220.00	9,522.00		550.00		11,552.00	
Nat'l F & W	92,983.00				92,983.00			92,983.00	
CSBG	125,000.00	29,227.00	10,523.00		54,580.00	30,670.00		125,000.00	
TOTALS	1,007,556.37	224,953.00	27,022.32	447,611.68	213,298.00	50,068.37	36,364.00	999,317.37	8,239.00

SUMMARY OF TASK ACCOMPLISHMENTS

TASK 1 *Develop a work order agreement that describes the procedures to implement the project layout and monitoring station establishment for the prescribed work.*

Work order agreements were established for the U.S. Forest Service for emergency storm proofing in 1998, decommissioning and winterization in 1999, and winterization again in the summer of 2000.

TASK 2 *Use heavy equipment to rip approximately .5 miles of road surface.*

In 1998 the Tribe used heavy equipment to rip approximately .5 miles of road surface (within a 2.2 mile stretch) in order to reduce erosion.

TASK 3 *Remove approximately 100 cubic yards of fillslope.*

In 1999 the Karuk Tribe decommissioned approximately one mile of road (approximately 58,000 yards), returning the road prism back to the original slope and reducing the erosion from runoff and failed culverts.

TASK 4 *"Storm Proof" approximately one mile of road surface to prevent sediment impacts during future winter seasons.*

The Karuk Tribe's Watershed Restoration Crew created rolling dips with straw bale fences along the remaining segment of road in order to catch any runoff from the winters storm events.

TASK 5 *Continue to operate and maintain KRIS and familiarize appropriate personnel with the system.*

Tribal staff have attended KRIS workshops in order to become more proficient in utilizing the data base management tool.

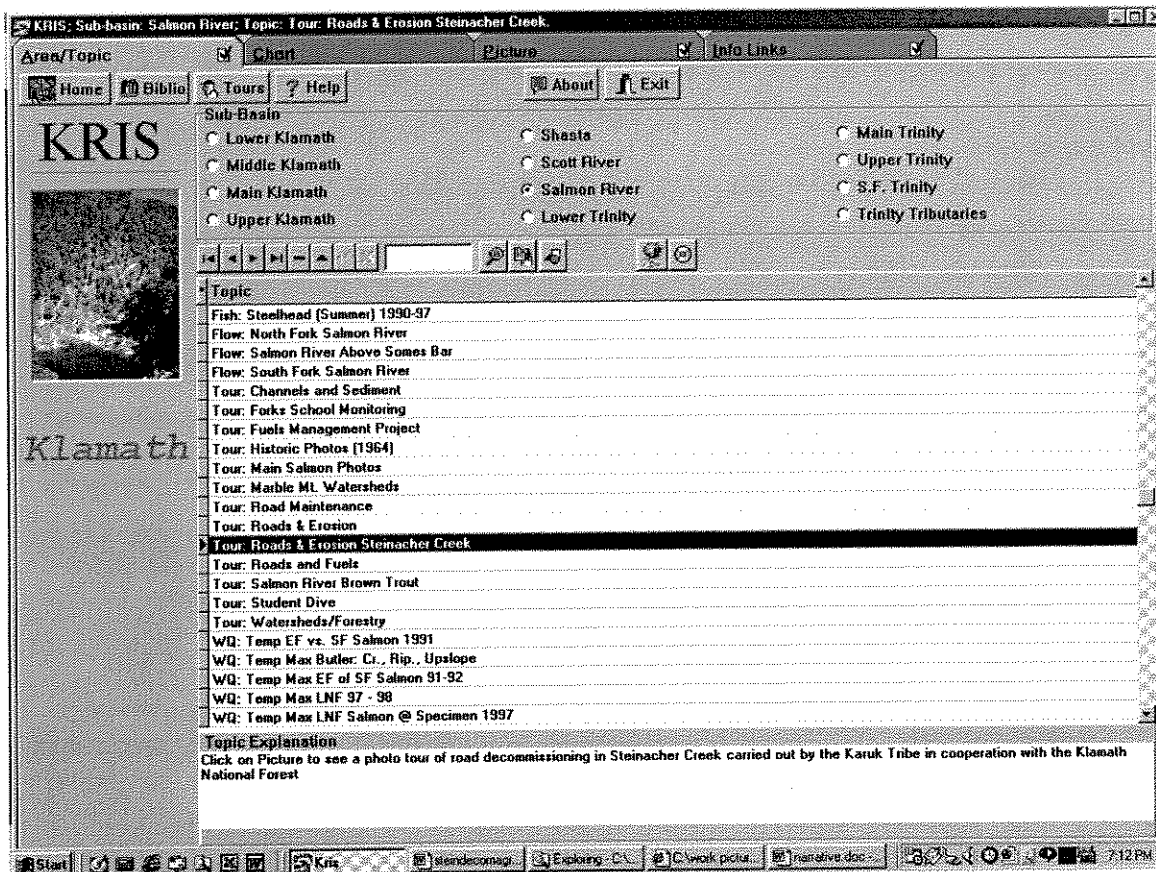
TASK 6 *Continue to cooperate with KRIS personnel to select and organize fisheries and water quality data from the Karuk Tribal Fisheries Program for incorporation into KRIS.*

Tribal staff have been in contact with Pat Higgins and Jim Villeponto to update the KRIS system to include a portion of the Karuk Tribes water quality data.

TASK 7 *Submit quarterly progress reports, a draft report, and three copies of the final report.*

APPENDIX A

KRIS TOUR OF THE STEINACHER ROAD DECOMMISSIONING PROJECT.



KHIS, Sub-basin: Salmon River; Topic: Tour: Roads & Erosion Steinacher Creek

Area/Topic Chart Picture Info Links

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STEINACHER ROAD DECOMMISSIONING PROJECT

Steinacher Road is located off the Salmon River Road (Forest Hwy. 93), East of Somes Bar and State Highway 96. Both Wooley Creek (which Steinacher drains into) and the Salmon River are Key Watersheds. The Wooley Creek tributary is widely recognized as one of the most pristine and high quality anadromous fish habitats in the state of California. Except for Steinacher Road, the Wooley Creek drainage is located entirely within designated Wilderness area. Maps & photo's courtesy of Scott

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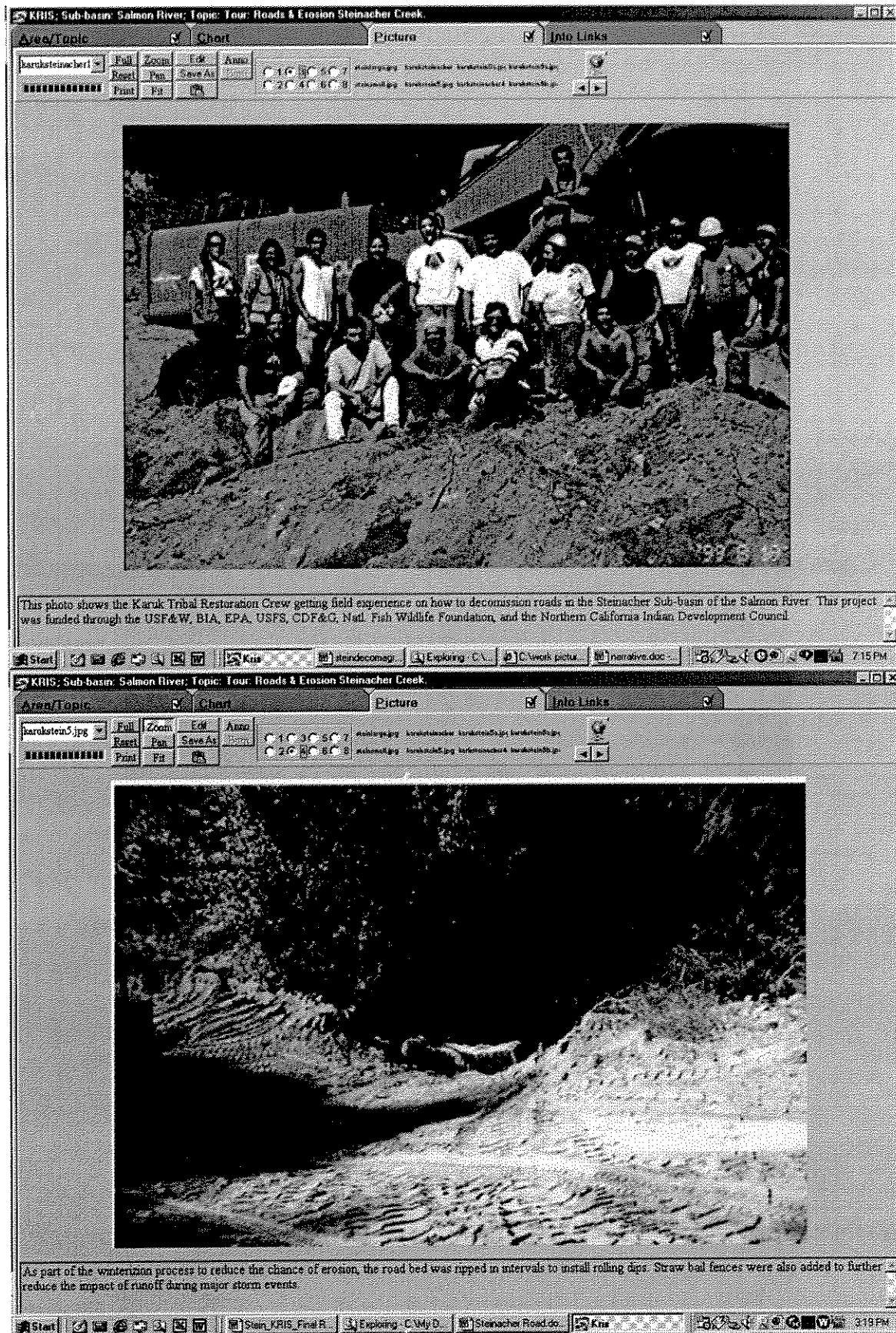
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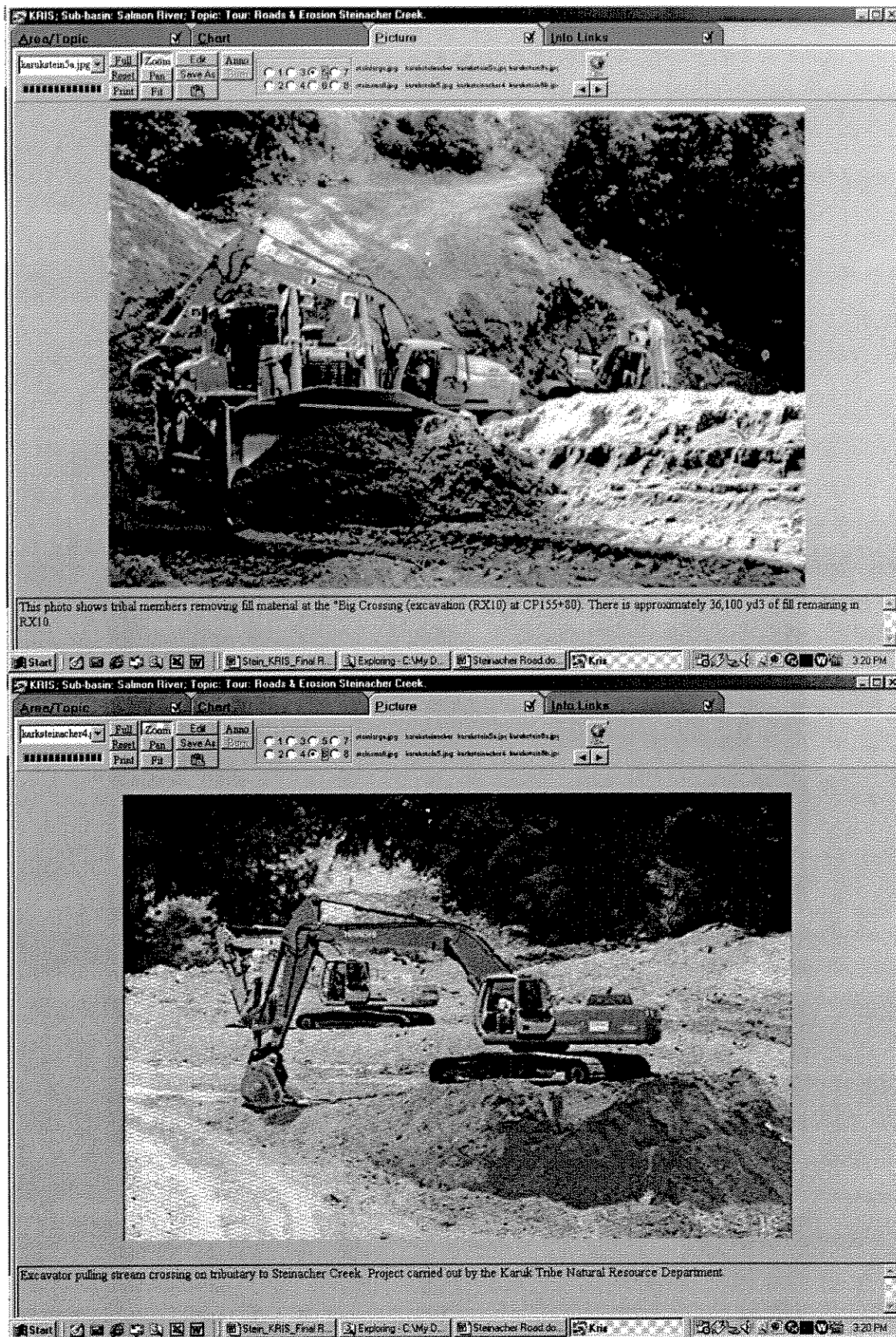
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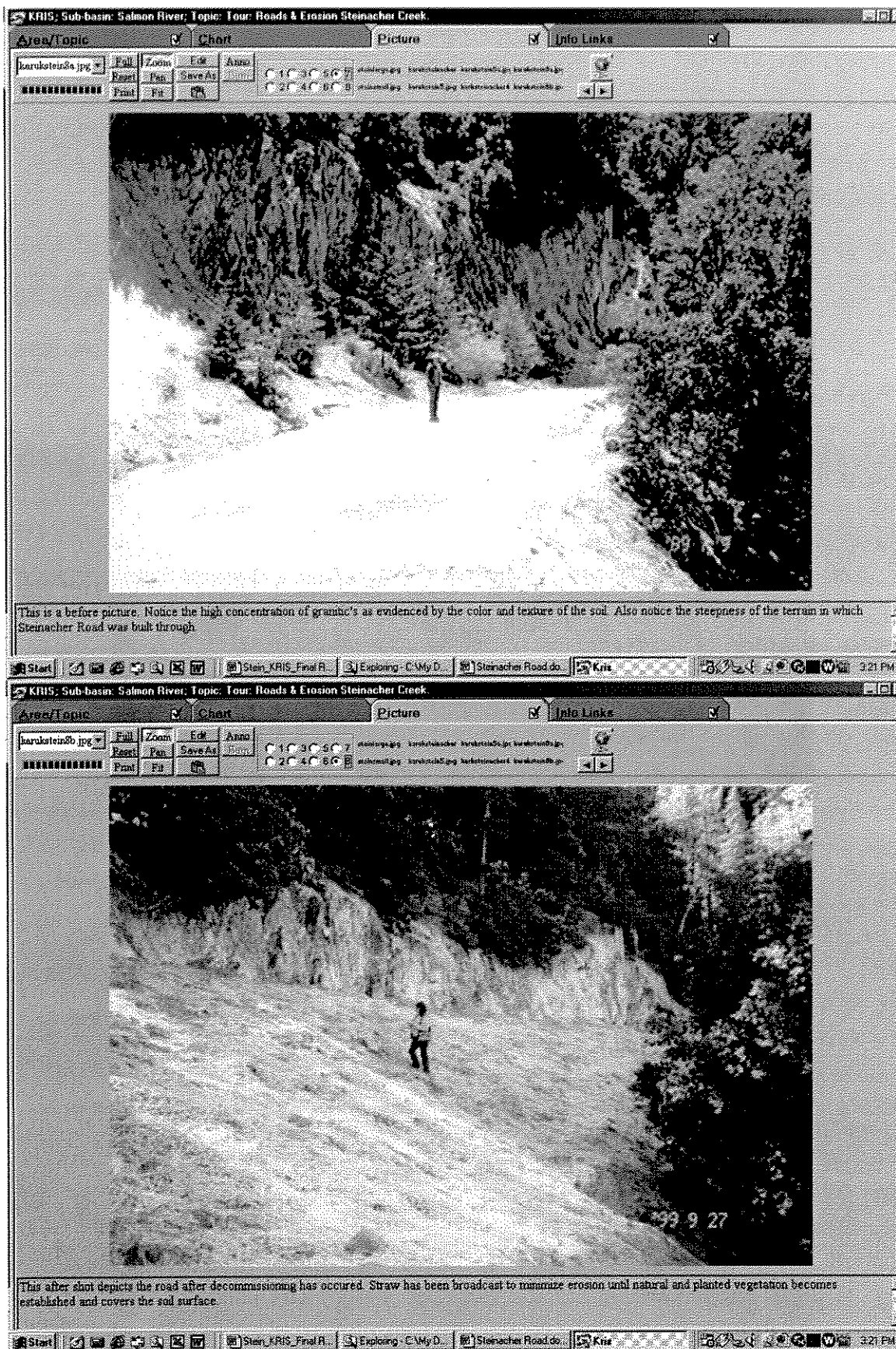
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Steinacher Road was built between 1969 and 1971. The soils in this area are comprised of mostly highly erosive granatics that tend to cause culvert and ditch failure. From 1970 to 1996, it is estimated that 10,650 cubic yards of sediment entered the stream channel from cutbanks and road surfaces. The annual volume of sediment delivery from these sources is more than three times natural background levels. The Steinacher Road is a phased project. In 1998 the Karuk Tribe performed emergency storm

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DECISION NOTICE

AND

FINDING OF NO SIGNIFICANT IMPACT

STEINACHER ROAD (RD. 12N01) REHABILITATION PROJECT

USDA, FOREST SERVICE
KLAMATH NATIONAL FOREST
Ukonom Ranger District
Siskiyou County, California

An analysis of rehabilitation measures needed on the Steinacher Road (Rd. 12N01), and their impacts, has been prepared. The analysis is documented in the environmental assessment for the Steinacher Road (Rd. 12N01) Rehabilitation Project.

Issues and concerns addressed in the analysis were: Impacts on anadromous and resident trout habitat in Wooley Creek and Steinacher Creek; Impacts on water quality in Wooley Creek and the lower mainstem of the Salmon River; Impacts on dispersed recreation potential of the Portuguese trail system; Impacts to contemporary use; Impacts to wildlife, particularly threatened and endangered species; and economic impacts.

Scoping letters were sent to concerned citizens and agencies, including the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the Sierra Club. In addition copies of the letter were posted in Somes Bar, and Orleans, California.

Phase I of the decommissioning process, as outlined in Alternative 4 of the Environmental Analysis, commenced in May of 1996 and was completed in September of 1996. The winter that followed the completion of the project produced severe rainfall and runoff events. Monitoring has shown that although some storm damage did occur, the goals and objectives of the decommissioned segment of Rd 12N01 were met. Based on this monitoring, I have selected a modified Alternative 4 as the selected alternative for the Phase II decommissioning of Rd. 12N01.

Implementation of this alternative would be the second phase of a staged decommissioning process. The Phase II decommissioning project will implement proven decommissioning methods and "storm-proof" the remainder of the road, until future decommissioning takes place. Phase II will be under the auspices of the Natural Resources Department of the Karuk Tribe in cooperation with Pacific Watershed Associates and the Klamath National Forest.

This alternative incorporates elements of alternative 4 to treat the next decommissioning portion of the road. This portion is from the corrals down about 1.5 miles, the roadway would not be driveable by vehicle. Excavated

would be eliminated, armored waterbars would be placed at locations appropriate to disperse water. Existing fills would be removed, and the excavated surfaces would be re-vegetated, with armored spillways installed.

From the end of the decommissioned portion down, the road would be outsloped as needed to disperse surface runoff, and prevent concentrated overland flow along the road grade. Cross drains, where feasible, would be pulled and substituted with driveable rolling dips. Energy dissipators would be installed where needed, and grass seeding would be introduced on bare fill slopes. The road would receive periodic, annual at a minimum, maintenance. Annual evaluations of storm impacts would take place.

These procedures will be implemented in future phases of decommissioning of Rd. 12N01. These future actions will be undertaken as funding becomes available, and be covered under this document.

Best Management Practices (BMP's) are measures certified by the State Water Quality Board and approved by the Environmental Protection Agency as the most effective means of protecting water quality impacts from non-point sources of pollution. The following is a list of BMP's that will be adhered to in the decommissioning phase:

- BMP 1.20 Erosion Control Structure Maintenance.
- BMP 2.30 Timing of Construction Activities
- BMP 2.40 Road Slope and Spoil Disposal Area Stabilization
- BMP 2.60 Dispersion of Subsurface Drainage from Cut and Fill Slopes
- BMP 2.90 Timely Erosion Control Measures on Incomplete Roads and Stream Crossing Projects
- BMP 2.10 Construction of Stable Embankments
- BMP 2.12 Servicing and Refueling of Equipment
- BMP 2.13 Control of Construction in Streamside Management Zones
- BMP 2.27 Restoration of Borrow Pits and Quarries

Other alternatives considered in detail were: Alternative 1 (No Action, Maintain Present Maintenance Schedule); Alternative 2 (Increased Maintenance Schedule, After Each Run-Off Producing Storm Event); and Alternative 3 (Road Obliteration). Alternative 3 was determined to be not feasible for the following reason:

Short term sedimentation from excavation would cancel out long term benefits from restoration activities. Post contract monitoring of Gates Creek indicated that up to 15% of the material excavated could be lost as sediment input to the stream course.

FINDING OF NO SIGNIFICANT IMPACT

Implementation of the modified Alternative 4 will result in no impact of significance to the human environment, and no environmental impact statement will be prepared. There will be no irreversible resource commitments or irretrievable resource losses. Modified Alternative 4 will serve to reduce the amount of sediment being introduced into Steinacher Creek, and ultimately into Wooley Creek and the Salmon River. Impacts on wildlife will be minimal in the

restrictions on the operating season, and by restricting operations to the existing road prism. There will be no adverse impacts on threatened and endangered species, and the effects on flood plains and wetlands will be very positive.

Based on this information I have determined this is not a major federal action that would significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed. This determination is based on the following factors listed in 40 CFR 1508.27:

1. Both beneficial and adverse effects have been taken into consideration when making this determination of nonsignificance. Beneficial effects have not, however, been used to offset or compensate for potential adverse effects.
2. This action will have little or no effect on public health and safety.
3. The characteristics of this geographical area do not make it uniquely sensitive to the proposed actions.
4. The effects are not likely to be controversial. Public involvement to date has indicated there is support for implementing this activity to meet the goals of the area.
5. Results of actions are not considered highly uncertain, nor do they represent unique or unknown risks.
6. A precedent is not being set for future decisions with significant effects. Any future decisions will need to consider all relevant scientific and site-specific information available at that time.
7. This project does not represent potential cumulative adverse impacts when considered in combination with other past or reasonably foreseeable actions.
8. There are no known cultural resources affected. An Archaeological Survey Report (ASR) was completed in 1995. Known sites are outside of areas of management activities; if new sites are discovered during implementation, they would be protected.
9. A plant survey and Biological Evaluation (BE) was completed in May 1993, by the Forest Zone Ecologist for species on the USFS Region 5 Sensitive Plant List and for Threatened and Endangered species that are federally listed. No State or Federally listed, Rare, Threatened or Endangered plant species are known to occur within the project area, and none were found during the survey. One sensitive plant species, *Silene marmorensis* (SIMA 4) was located outside the project area. This species will not be affected by the project.

A survey and Biological Evaluation (BE) for Sensitive, Threatened and Endangered animal species was completed in 1994 by the District Wildlife Biologist. The project will have no effect on bald eagles, peregrine falcons, marbled murrelets, or the California State threatened Siskiyou Mountain Salamander. This project will not adversely impact any suitable habitat for the northern spotted owl.

The mitigation measures identified in the Environment Assessment will effectively meet the state water quality standards, minimize soil loss, maintain the visual quality objectives, maintain wildlife habitat, and meet sediment reduction objectives. In addition there would be no irreversible or irretrievable commitments of resources. There are no apparent adverse cumulative or secondary effects. The physical and biological effects are limited to the area of the planned projects. No impacts will occur to the one Threatened species (northern spotted owl) occurring within the project area. There will be no significant effects on any floodplains or wetlands associated with this project.

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITY

My decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215.7. Appeals must be filed within 45 days from the publication of a legal notice in the Siskiyou Daily News. Notices of appeal must meet the specific content requirements of 36 CFR 215.14. Persons wishing to participate must meet the requirements of 36 CFR 215.11. As a minimum, in compliance with 36 CFR, part 215.11, your notice of appeal MUST include: Your name; address; telephone number; the decision being appealed by title; the name and title of the Forest Officer who signed the decision; the portion of the decision to which you object, and why; and identification of the specific changes in the decision that you are seeking. Your appeal will be dismissed if the preceding information is not included in the notice of appeal.

It is essential that copies of the notice of appeal be filed with the Appeal Deciding Officer. File notices of appeal with: G. Lynn Sprague, Regional Forester, USDA Forest Service, 630 Sansome Street, San Francisco, CA 94111.

IMPLEMENTATION DATE

Implementation of this proposal may not take place until at least 5 business days after the close of the appeal filing period.

CONTACT PERSON

For further information contact: Bill Snavely, Ukonom Ranger District, Orleans, CA 95556, telephone (916) 627-3291.


JON R. MARTIN
District Ranger

8/11/97
Date